# LECTOTYPE DESIGNATION FOR AEDES (STEGOMYIA) CHEMULPOENSIS YAMADA WITH A NOTE ON ITS ASSIGNMENT TO THE AEGYPTI GROUP OF SPECIES (DIPTERA: CULICIDAE)

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# LECTOTYPE DESIGNATION FOR AEDES (STEGOMYIA) CHEMULPOENSIS YAMADA WITH A NOTE ON ITS ASSIGNMENT TO THE AEGYPTI GROUP OF SPECIES (DIPTERA: CULICIDAE)<sup>1</sup>

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ABSTRACT—Examination of syntypes of Aedes chemulpoensis Yamada confirms its assignment to the aegypti group of species. A full description of the lectotype male is given.

Yamada (1921) described Aedes chemulpoensis from Korea. Unfortunately, he did not describe or illustrate the male terminalia of this species in his original description. Edwards (1932) divided the subgenus Stegomyia into four groups and assigned chemulpoensis to Group B (w-albus group). Mattingly (1953) transferred it from Group B to Group A (aegypti group).

Through the kindness of Dr. M. Sasa, I have had the opportunity to examine the Yamada's syntypes of *chemulpoensis*. It is now possible for me to confirm the assignment of Mattingly (1953, 1965) in placing this species in the *aegypti* group. It has been considered desirable to give a detailed description of a lectotype male which I have selected so that the identity of Yamada's *chemulpoensis* and its placement should no longer remain in doubt.

Aedes (Stegomyia) chemulpoensis Yamada

Fig. 1

Aedes chemulpoensis Yamada, 1921, Annot. Zool. Jap. 10:54 (  $\circ$  3). Type locality: Jinsen (Chemulpo). Korea.

Lectotype hereby designated: lectotype male with associated terminalia slide (YMH—'69-82), Shorinri, Jinsen, Chosen, 28-8-1920 (S. Hirayama). Deposited in the Medical Zoology Laboratory, Institute for Infectious Diseases, University of Tokyo, Tokyo, Japan.

Male: Head. Proboscis dark scaled, without pale scales on ventral side, slightly longer than fore femur; palpus dark, as long as proboscis, with white basal band on each of segments 2–5; those on segments 4, 5 incomplete dorsally; segments 4, 5 subequal, slender, upturned, and with only a few short hairs; antenna plumose, shorter than proboscis; clypeus bare; torus covered with white scales except on

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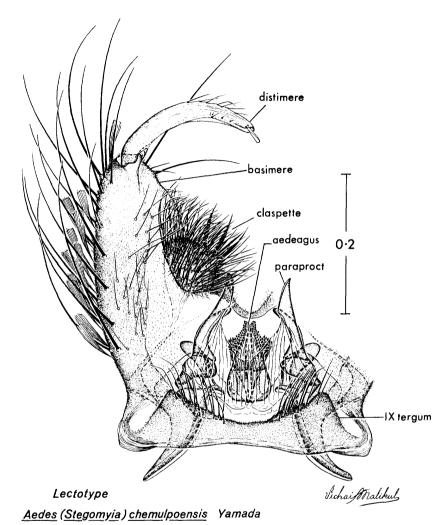


Fig. 1. Aedes (Stegomyia) chemulpoensis, tergal aspect of lectotype male terminalia.

dorsal side; decumbent scales of vertex all broad and flat; erect forked scales dark, not numerous, restricted to occiput; vertex with median stripe of broad white scales, with broad dark ones on each side interrupted by lateral stripe of broad white scales followed by patch of broad white scales ventrally. *Thorax*. Scutum with narrow dark scales and prominent small median white spot of narrow scales on anterior border; a few narrow white scales on the posterior portion of mid-line forming short median white stripe just in front of prescutellar space; prescutellar white lines not present; large patch of broader (crescent-shaped) white scales on fossal

area; posterior dorsocentral white lines present and reach to middle of scutum; patch of narrow white scales on lateral margin just before level of wing root; acrostichal bristles absent; dorsocentral bristles present; scutellum with broad white scales on all lobes; anterior pronotum with broad white scales; posterior pronotum with small patch of broad white scales and some dark narrow ones dorsally; paratergum with broad white scales; postspiracular area without scales; patches of broad white scales on propleuron, on subspiracular area, on upper and lower portions of sternopleuron and on mesepimeron; upper sternopleural scale patch does not reach to anterior corner of sternopleuron; lower mesepimeron without bristles; metameron bare. Wing. With dark scales on all veins except for minute basal spot of white scales on costa; first forked cell 1.8 times as long as its stem. Halter. With dark scales. Legs. Coxae with patches of white scales; knee-spots present on all femora; fore and mid femora anteriorly dark with some pale scales scattered, more so on mid than on fore femur; hind femur anteriorly with broad white longitudinal stripe which widens at base and on about basal 3/4; fore and mid tibiae anteriorly dark each with white band at about basal 1/3; hind tibia anteriorly dark with white band at about basal 3/5; fore and mid tarsi with basal white bands on tarsomeres 1-3; hind tarsus with basal white bands on tarsomeres 1-4, ratio of length of white band ventral side dark; fore and mid legs with tarsal claws unequal, all simple; hind leg with tarsal claws equal, simple. Abdomen. Abdominal segment I with white scales on laterotergum; terga II-VI each with a basal white band and basal lateral white spots; lateral spots do not connect with basal bands; sternum II with lateral white spots only; sterna III-VI with basal white bands and lateral white spots which do not connect with the basal bands. Terminalia. Basimere 2.2 times as long as wide; its scales restricted to lateral and ventral areas; with patch of hairs on basomesal area and a few larger hairs on apicomesal area of dorsal surface; mesal surface membranous; claspette large, rounded lobelike, with numerous setae and with 3 widened specialized spinelike ones on mesal side of expanded distal part; distimere simple, short and curved, with a short spiniform process at apex and with a few hairs on apical half; aedeagus strongly toothed; paraprocts with sternal arms; cercal setae absent; tergum IX concave at middle and with 12 hairs on each lateral lobe; sternum IX without bristles.

Taxonomic discussion: Aedes chemulpoensis is a member of the aegypti group, having palpi with white scales, scutum with a large patch of broader crescent-shaped white scales on fossal area, dorso-central bristles present. It can easily be distinguished from all other members of the aegypti group by having fore and mid femora with some pale scales scattered on anterior surface and all tibiae with white bands.

The male terminalia of this species have the claspette large, rounded lobelike, with numerous setae and with 3 widened specialized spine-like ones on mesal side of expanded distal part; tergum IX concave at middle and with 12 hairs on each lateral lobe, thus differing from all other species that have been described in this group.

Aedes chemulpoensis, a Palearctic species of the aegypti group, is presently known from N.E. China and Korea.

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## REFERENCES

- Edwards, F. W. 1932. Genera Insectorum. Diptera. Fam. Culicidae. Fascicle 194, 258 pp.
- Mattingly, P. F. 1953. The sub-genus Stegomyia (Diptera: Culicidae) in the Ethiopian Region. (Part II). Distribution of species confined to the East and South African sub-region. Bull. Brit. Mus. (Nat. Hist.) Ent., London. 3(1):1-65.
- Genus Aedes Meigen, subgenus Stegomyia Theobald (Groups A, B and D). Brit. Mus. (Nat. Hist.) Ent., London. 67 pp.
- Yamada, S. 1921. Descriptions of ten new species of Aedes found in Japan, with notes on the relation between some of these mosquitoes and the larva of Filaria bancrofti Cobbold. Annot. Zool. Jap. 10:45-81.

